J-3924 "PATENT APPLICATION"

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Before the Board of Patent Appeals and Interferences

In re Application of

JAMES J. LESKOWICZ ET AL

U.S. Serial No. 10/822,301 Group Art Unit 1796

Filed: April 9, 2004 L. Douyon, Examiner

ZERO TO LOW VOC GLASS AND
GENERAL PURPOSE CLEANER

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Racine, Wisconsin
October 5, 2009

Commissioner for Patents
P.O. Box 1450
Alexandria, Virginia 22313-1450

BRIEF ON APPEAL

Dear Sir:

This appeal is from the action of the Primary Examiner mailed May 6, 2009 finally rejecting claims 2, 9-16, 19-28, 35-38, 45-50, 55-58, 62-65, 67-68 and 70-71.

Applicants' brief fee of $540 is attached. The Brief On Appeal is being submitted within the time for response. The Commissioner is hereby authorized to charge any additional fees which may be required, or credit any overpayment to Deposit Account No. 02-3690 of the undersigned attorney.

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Real Party In Interest

The named inventors of the captioned application have assigned their entire rights to S. C. Johnson & Son, Inc., a corporation organized under the laws of Wisconsin, located in Racine, Wisconsin. S. C. Johnson & Son, Inc. is the real party in interest.

Related Appeals And Interferences

No appeal or interference is known to applicants which will directly affect or be directly affected by or have a bearing on the Board's decision in this pending appeal.

Status Of Claims

The claims pending in this application are claims 2, 9-16, 19-28, 35-38, 45-50, 55-58, 62-65, 67-68 and 70-71. Claims 2 and 62 are the pending independent claims. Claims 2, 9-16, 19-28, 35-38, 45-50, 55-58, 62-65, 67-68 and 70-71 are rejected. Claims 1, 3-8, 17-18, 29-34, 39-44, 51-54, 59-61, 66 and 69 have been canceled. Accordingly, the appealed claims are 2, 9-16, 19-28, 35-38, 45-50, 55-58, 62-65, 67-68 and 70-71 as set forth in the Claims Appendix attached hereto.

Status Of Amendments

An Amendment After Final Rejection was timely filed July 6, 2009 in response to the official action mailed May 6, 2009 finally rejecting claims 2, 9-16, 19-28, 35-38, 45-50, 55-58, 62-65, 67-68 and 70-71. An Advisory Action was mailed July 14, 2009 stating that the Amendment After Final Rejection filed July 6, 2009 overcomes the 35 U.S.C. § 112, second paragraph rejection, but fails to place the application in condition for allowance. The Advisory Action further stated that for the purposes of appeal, the proposed amendments will be entered.

Summary Of Claimed Subject Matter

Independent claims 2 and 62 are set forth below with reference to pages and lines of the specification.

Claim 2 claims a hard surface cleaning composition (page 1, lines 7-8) comprising

(a) greater than 0 to about 4% by wt. of at least one low-volatile evaporative organic solvent (page 4, lines 6-11) that has limited solubility in water of less than 20% (page 3, lines 30-32) and reduces surface tension of the composition to less than 40 dynes/cm (page 3, lines 32-33), wherein said at least one low-volatile evaporative organic

solvent includes a non-volatile organic compound (non-VOC) which is a glycol ether having a formula –

R_1-O-R_2 (page 4, lines 10-15)

wherein R_1 is a C_1-C_8 linear, branched or cyclic alkyl or alkenyl optionally substituted with -OH, $-OCH_3$, or $-OCH_2CH_3$ and R_2 is a C_1-C_6 linear, branched or cyclic alkyl or alkenyl substituted with -OH (page 4, lines 16-19);

(b) greater than 0 to about 5% by wt. of at least one amphoteric surfactant and, optionally, at least one additional surfactant which is anionic, nonionic, cationic or a mixture thereof (page 7, lines 15-22);

(c) from greater than 0 to about 30% by wt. of at least one co-solvent which is different from (a) and when said co-solvent is a low volatile non-VOC solvent, said co-solvent has at least a different water-solubility or different surface tension reduction capacity from said solvent of (a) (page 7, lines 5-8; page 6, lines 12-16), and includes at least one aliphatic alcohol, at least one polyhydric alcohol, and at least one alkanolamine (page 6, lines 6-8, 17-19, 28-29; page 7, lines 1-2); and

(d) a balance of an aqueous carrier (page 9, lines 3-6);

wherein said composition has less than about 4% by wt. volatile organic compound (VOC) content (page 2, lines 11-14; page 4, lines 6-7).

Claim 62 claims a hard surface cleaning composition (page 1, lines 7-8) comprising

(a) greater than 0 to about 4% by wt. of at least one low-volatile evaporative organic solvent (page 4, lines 6-11) that has limited solubility in water of less than 20% (page 3, lines 30-32) and reduces surface tension of the composition to less than 40 dynes/cm (page 3, lines 32-33), wherein said at least one low-volatile evaporative organic solvent includes a non-volatile organic compound (non-VOC) which is a glycol ether having a formula –

R_1-O-R_2 (page 4, lines 10-15)

wherein R_1 is a C_1-C_8 linear, branched or cyclic alkyl or alkenyl optionally substituted with -OH, -OCH_3, or -OCH_2CH_3 and R_2 is a C_1-C_6 linear, branched or cyclic alkyl or alkenyl substituted with -OH (page 4, lines 16-19);

(b) greater than 0 to about 5% by wt. of at least one amphoteric surfactant and, optionally, at least one surfactant which is anionic, nonionic, cationic or a mixture thereof (page 7, lines 15-22);

(c) from greater than 0 to about 30% by wt. of at least one co-solvent which is different from (a) and when said co-

solvent is a low volatile non-VOC solvent, said co-solvent has at least a different water-solubility or different surface tension reduction capacity from said solvent of (a) (page 7, lines 5-8; page 6, lines 12-16), and includes at least one aliphatic alcohol, and an alkanolamine (page 6, lines 6-8, 17-19, 28-29; page 7, lines 1-2);

(d) a polymer or a copolymer (page 9, lines 7-10); and

(e) a balance of an aqueous carrier (page 9, lines 3-6);

wherein said composition has less than about 4% by wt. volatile organic compound (VOC) content (page 2, lines 11-14; page 4, lines 6-7).

Grounds Of Rejection to be Reviewed on Appeal

The grounds of rejection to be reviewed in the present appeal are:

(1) Claims 2, 12, 16, 24, 26, 28, 38, 48, 50, 56 and 67 under 35 U.S.C. §103(a) over U.S. Patent No. 5,849,681 (Neumiller '681);

(2) Claims 10, 14, 20, 22, 36, 46 and 58 under 35 U.S.C. §103(a) over Neumiller '681 as applied to the above claims, and further in view of U.S. Patent No. 5,716,921 (Neumiller '921);

(3) Claims 2, 11-12, 15-16, 23-28, 37-38, 47-50, 55-56, 62-63, 65, 67-68 and 70-71 under 35 U.S.C. §103(a) over EP 0 527 625 A2 (Cummings);

(4) Claims 2, 12, 16, 24, 26, 28, 36, 38, 48, 50, 56, 67 and 70 under 35 U.S.C. §103(a) over U.S. Patent No. 5,540,864 (Michael);

(5) Claims 10, 14, 20, 22, 36, 46 and 58 under 35 U.S.C. §103(a) over Michael as applied to the above claims, and further in view of Neumiller '921;

(6) Claims 9-10, 13-14, 19-22, 35-36, 45-46 and 57-58 under 35 U.S.C. §103(a) over Cummings as applied to the above claims and further in view of Neumiller '921;

(7) Claims 2, 11-12, 15-16, 23-28, 37-38, 47-50, 55-56, 62-65, 67-68 and 70-71 under 35 U.S.C. §103(a) over WO 99/11123 (Conway);

(8) Claims 9-10, 13-14, 19-22, 35-36, 45-46 and 57-58 under 35 U.S.C. §103(a) over Conway as applied to the above claims, and further in view of Neumiller '921;

(9) Claims 11, 15, 23, 25, 27, 37, 49, 55, 62-65, 68 and 71 under 35 U.S.C. §103(a) over Michael as applied to the above claims, and further in view of Conway;

(10) Claims 11, 15, 23, 25, 27, 37, 47, 49, 55 and 62-65 under 35 U.S.C. §103(a) over Neumiller '681 as applied to the above claims, and further in view of Conway;

(11) Claim 64 under 35 U.S.C. §103(a) over Cummings as applied to the above claims, and further in view of Conway;

(12) Claims 2, 9, 11-13, 15-16, 19, 21, 23-28, 35-38, 45, 47-50, 55-57, 62-65, 67-68 and 70-71 under 35 U.S.C. §103(a) over U.S. Patent No. 5,534,198 (Masters); and

(13) Claims 10, 14, 20, 22, 46, and 58 under 35 U.S.C. §103(a) over Masters as applied to the above claims, and further in view of Neumiller '921.

I. Argument

Applicants respectfully submit that while the Examiner has located various references that disclose certain isolated components of applicants' claimed compositions, the specific combinations as claimed are not taught by the applied art as evident from each rejection being under 35 U.S.C. §103 rather than under §102. Further, in the absence of applicants' own disclosure, no teaching is provided by the applied art which would suggest to one

skilled in the art to select these isolated components and combine them in a manner so as to achieve applicants' specific combinations. Essentially, the Examiner's argument in the assertion of unpatentability under 35 U.S.C. §103 in each rejection is that the individual components are known and that the amounts of various components as claimed overlap with ranges taught in the applied art. The Examiner acknowledges that each applied reference, including those applied alone, fail to teach certain claimed elements. Such are then asserted to be an obvious modification to one skilled in the art since it is a known compound, e.g., surfactant, and that the amounts are merely a matter of optimization.

Applicants submit, however, that the Examiner's argument does not take into account all the claim limitations and does not present a prima facie case of obviousness within the meaning of 35 U.S.C. §103. A rejection under 35 U.S.C. §103 must rest on a firm factual basis and deficiencies in the factual basis cannot be supplied by resorting to speculation or unsupportable generalities. In re Warner, 379 F.2d 1011, 154 USPQ 173 (CCPA 1967) and In re Freed, 425 F.2d 785, 165 USPQ 570 (CCPA 1970).

The rejections of the Examiner make it clear that the Examiner is choosing select parts of the prior art disclosures based on applicants' own teaching, i.e., knowing the end composition sought and the problem to be solved. This is using improper hindsight. Thus, as the Court of Appeals for the Federal Circuit stated in In re Rouffet, 149, F.3d 1350, 1357, 47 USPQ2d 1453, 1457 (Fed. Cir. 1998):

> "As this court has stated, "virtually all [inventions] are combinations of old elements." *Environmental Designs, Ltd. v. Union Oil Co.*, 713 F.2d 693, 698, 218 USPQ 865, 870 (Fed. Cir. 1983); *see also Richdel, Inc. v. Sunspool Corp.*, 714 F.2d 1573, 1579-80, 219 USPQ 8, 12 (Fed. Cir. 1983) ("Most, if not all, inventions are combinations and mostly of old elements."). Therefore an examiner may often find every element of a claimed invention in the prior art. If identification of each claimed element in the prior art were sufficient to negate patentability, very few patents would ever issue. Furthermore, rejecting patents solely by finding prior art corollaries for the claimed elements would permit an examiner to use the claimed invention itself as a blueprint for piecing together elements in the prior art to defeat the patentability of the claimed invention. Such an approach would be "an illogical and inappropriate process by which to determine patentability." *Sensonics. Inc. v. Aerosonic Corp.*, 81 F.3d 1566, 1570. 38 USPQ2d 1551, 1554 (Fed. Cir. 1996).
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> To prevent the use of hindsight based on the invention to defeat patentability of the invention, this court requires the examiner to show a motivation to combine the references that create the case of obviousness. In other words, the examiner must show reasons that the skilled artisan, confronted with the same problems as the inventor and with no knowledge of the claimed

> invention, would select the elements from the cited prior art references for combination in the manner claimed."

In the case at hand, there is no motivation or suggestion to choose only select parts of the applied references and modify such so as to provide a combination as claimed by applicants, in particular since all of the limitations of the claims are not taken into account. As held by the Court of Appeals for the Federal Circuit, a combination may be patentable whether it be composed of elements all new, partly new or all old. Rosemount, Inc. v. Beckman Instruments, Inc., 727 F.2d 1540, 1546; 221 USPQ 1, 7 (Fed. Cir. 1984). Obviousness or nonobviousness is based on the "making of the combination" in the first instance and not determined upon the effect of the claimed combination. Beatrice Foods Co. v. Tsuyama Mfg. Co., 619 F.2d 3, 7; 204 USPQ 889, 893 (CA7 1979).

Further, this is in accordance with KSR Int'l. Co. v. Teleflex Inc., 127 S. Ct. 1727, 82 USPQ2d 1385 (2007) wherein the U.S. Supreme Court stated –

> "a patent composed of several elements is not proved obvious merely by demonstrating that each of its elements was, independently, known in the prior art. Although common sense directs one to look with care at a patent application that claims as innovation the combination of two known devices according to their established functions, it can be important to identify a reason that would have prompted a person of ordinary skill in the relevant field to combine the elements in the way the claimed new invention does. This is so

> because inventions in most, if not all, instances rely on building blocks long since uncovered, and claimed discoveries almost of necessity will be combinations of what, in some sense, is already known." (127 S.Ct. at 1741, 82 USPQ2d at 1396).

The Court in KSR, supra, additionally referred to In re Kahn, 441 F.3d 977, 988 (C.A. Fed. 2006) which states "[R]ejections on obviousness grounds cannot be sustained by mere conclusory statements; instead, there must be some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness".

Applicants' claimed compositions include a specified combination of defined components in stated amounts to provide a composition with a reduced VOC content of less than 4% while providing acceptable cleaning. The patent art relied on by the Examiner does not provide any teaching or suggestion to choose only select components from a myriad of compounds not distinguished from each other, as well as provide such in a particular amount selected from a range which includes unworkable amounts, e.g., would result in a VOC content in the composition above the claimed content thereby taking the composition outside its claimed parameters.

More specifically as to the applied art, the references of Neumiller '681, Cummings, Michael, Conway and Masters are each applied alone under 35 U.S.C. §103 as to

independent claims 2 and/or 62. Michael and Neumiller '681 are each also applied in combination with Conway as to independent claim 62. As to each of these references, the Examiner acknowledges that the reference fails to teach some component(s), and/or component amount(s), and VOC content. These missing elements are then stated to be obvious to provide since such involves mere substitution of another known compound and optimization of an amount. No further basis is provided. No additional teaching is provided and other limitations are not taken into consideration, i.e., the particular water solubility and surface tension reduction capacity with respect to the low volatile non-volatile organic compound (non-VOC) evaporative solvent.

One critical element of the claimed compositions is that the compositions, such as shown in the examples in the captioned application, have zero to low volatile organic compound (VOC) content while still providing desired detergency, evaporatability and no streaking or hazing. Typically, as shown by the applied art, the inclusion of a combination of alcohols, high volatile glycol ethers, low-volatile glycol ethers and surfactants were considered necessary to obtain cleaning and acceptable drying rates (see the captioned specification at page 1, paragraph 0002). In contrast with this state of the art, applicants provide a

novel combination of components and amounts which have zero to low VOC content, i.e., namely as claimed in independent claims 2 and 62 as being less than 4% by wt. VOC content, and which is even more specifically claimed in dependent claims 67, 68, 70 and 71 as a composition having a VOC content of "3% by weight or less" and "about 1% by wt. or less". These lesser amounts are even more clearly not taught and are distinct from the teachings of the applied art.

To further emphasize the shortcomings of the applied art, applicants set forth below with respect to each rejection, the shortcomings in teachings of each primary reference, and thus the shortcomings as to any suggestion therefrom, with respect to the claimed compositions. Further, the shortcomings of Neumiller '921 and Conway apply equally when these references are applied as a secondary reference in combination with a primary reference.

The secondary references, which are relied on for certain isolated teachings, fail to make up for the same shortcomings of the primary references with which they are combined. When the teachings of the combined references are taken as a whole, such are deficient on the same basis as set forth herein as to each primary reference. As to each of the references, which the Examiner acknowledges fails to

teach one or more aspects of the claimed compositions, more than the teachings thereof is required in order to provide applicants' claimed compositions in view of the shortcomings set forth herein. More than mere substitution and optimization is required in view of the deficiencies in teachings of the applied references in order to render the claims obvious within the meaning of 35 U.S.C. §103.

1. Rejection Of Claims 2, 12, 16, 24, 26, 28, 38, 48, 50, 56 And 67 Under 35 U.S.C. §103(a) Over Neumiller '681

Claims 2, 12, 16, 24, 26, 28, 38, 48, 50, 56 and 67 are patentable over Neumiller '681 since Neumiller '681 does not render the claims obvious within the meaning of 35 U.S.C. §103(a) as set forth hereafter.

Neumiller '681 discloses an aqueous glass cleaning composition containing a nonvolatile organic ether and an anti-streaking alcohol. However, the primary reference Neumiller '681 (which is also applied in combination with a secondary reference as set forth below) fails to disclose -

- a composition including an amphoteric surfactant as claimed;
- a composition including a combination of amphoteric surfactant and anionic surfactant as claimed; and

- a composition with a VOC content as claimed or recognition of criticality as to VOC content and combination of a low-volatile evaporative organic solvent with properties as claimed.

Neumiller '681 does not provide any teaching or suggestion of importance in including a low-volatile evaporative organic solvent including a non-volatile organic compound (non-VOC) which is a glycol ether having a defined limited water solubility and surface tension reduction capacity as claimed, in particular in combination with an amphoteric surfactant, a co-solvent and aqueous carrier wherein the composition has a VOC content of less than about 4% by wt., and more specifically less than 3% by wt. and even more specifically as less than about 1% by wt. Applicants further claim in dependent claims more specific combinations which are also not taught in the applied reference.

More particularly, as to Neumiller '681, the Examiner acknowledges that Neumiller '681 fails to specifically disclose a composition including an amphoteric surfactant and the combination of amphoteric and anionic surfactants as claimed, but simply states that such addition would be obvious in order to adjust the surface tension of the composition taught in Neumiller '681. Applicants respectfully submit that it would not have been obvious to

one of ordinary skill in the art at the time of the invention to incorporate an amphoteric surfactant or the combination of anionic and amphoteric surfactants as asserted by the Examiner to adjust the surface tension of the composition as taught by Neumiller '681 and obtain applicants' claimed composition. Neumiller '681 in addition to not teaching or suggesting an amphoteric surfactant does not recognize the problem addressed by applicants and does not provide any teaching as to VOC content, in particular provides no recognition of criticality as to VOC content or the VOC content in combination with the defined low volatile non-VOC evaporative organic solvent.

There is no basis for modifying the composition described in Neumiller '681 to provide the combination as claimed by applicants. If it was desired to modify the surface tension of the composition as taught in Neumiller '681, one skilled in the art would use one of the surfactants taught therein as being compatible with the other components and not use a different surfactant not recognized as compatible. Further, no recognition is provided as to the criticality of including in the composition a low volatile non-VOC evaporative glycol ether solvent with the claimed limited water solubility and ability to reduce surface tension to less than 40 dynes/cm,

as well as inclusion of a co-solvent different from the first solvent as to solubility and surface tension reduction capacity, and including an alcohol and alkanolamine. The only manner in which this particular claimed combination of elements could be provided is through the use of impermissible hindsight or speculation.

In addition to the above shortcomings, the claims require in specific combinations in dependent claims that the low-volatile evaporative organic solvent is ethylene glycol n-hexyl ether (dependent claim 12), the specific combination of an anionic surfactant with the amphoteric surfactant (dependent claim 16), at a defined pH (dependent claims 24 and 26), requires propylene glycol as the polyhydric alcohol present in the combination (dependent claim 28), the alkanolamine is monoethanolamine (dependent claims 38 and 48), and the aliphatic alcohol is isopropanol (dependent claims 50 and 56).

Accordingly, based on the acknowledged failings of Neumiller '681 and the lack of additional teachings to provide particular selections from a myriad of other compounds such as, for example, no additional teaching as to particular water-solubility and surface tension reduction capacity of an evaporative organic solvent and no desired VOC content, no suggestion is provided to obtain the

combination as claimed by applicants to provide a cleaning composition with a VOC content of less than 4% by wt., especially less than 3% by wt. and in more so less than about 1% by wt.

Accordingly, Neumiller '681 does not teach or suggest the claimed compositions and does not render obvious the claimed compositions within the meaning of 35 U.S.C. §103(a).

2. Rejection Of Claims 10, 14, 20, 22, 36, 46 And 58 Under 35 U.S.C. §103(a) Over Neumiller '681 And Further In View Of Neumiller '921

Claims 10, 14, 20, 22, 36, 46 and 58 are patentable over Neumiller '681 in view of Neumiller '921 since Neumiller '681 in combination with and Neumiller '921 does not render the claims obvious within the meaning of 35 U.S.C. §103(a) as set forth hereafter.

Neumiller '681 discloses an aqueous glass cleaning composition as set forth above. Neumiller '921 does not make up for the shortcomings of Neumiller '681. Neumiller '921 discloses an aqueous glass cleaning composition including a quaternary compound and an amphoteric surfactant having a lipophilic portion, a cationic portion and an anionic portion containing an ether linkage. The secondary reference Neumiller '921, is relied on solely for providing an additional limitation present in dependent claims.

Particularly, the Examiner states that Neumiller '921 teaches the equivalency of disodium capryloamphodipropionate with disodium cocoamphodipropionate as amphoteric surfactants. The only basis for the asserted substitution is that both components fall within the same generic chemical description, i.e., both are amphoteric surfactants. Accordingly, the secondary reference of Neumiller '921 does not make up for the shortcomings of Neumiller '681 as set forth above, or for the other primary references with which it is applied as discussed below.

In addition to the above shortcomings and as otherwise set forth herein, the claims require in specific combinations in dependent claims that the low-volatile evaporative organic solvent is ethylene glycol n-hexyl ether (dependent claim 14 and 20-22), the specific combination of an anionic surfactant with the amphoteric surfactant, in particular where the anionic surfactant is further defined as a sulfate and/or sulfonate compound (dependent claim 20), further requires propylene glycol as the polyhydric alcohol present in the combination (dependent claim 36), requires that the alkanolamine is monoethanolamine (dependent claim 46), and the aliphatic alcohol is isopropanol (dependent claim 58).

Accordingly, Neumiller '681 in combination with Neumiller '921 does not teach or suggest the claimed composition and does not render obvious the claimed composition within the meaning of 35 U.S.C. §103(a).

3. Rejection Of Claims 2, 11-12, 15-16, 23-28, 37-38, 47-50, 55-56, 62-63, 65, 67-68 And 70-71 Under 35 U.S.C. §103(a) Over Cummings

Claims 2, 11-12, 15-16, 23-28, 37-38, 47-50, 55-56, 62-63, 65, 67-68 and 70-71 are patentable over Cummings since Cummings does not render the claims obvious within the meaning of 35 U.S.C. §103(a) as set forth hereafter.

The Examiner acknowledges that Cummings fails to specifically disclose a composition including an amphoteric surfactant, and the combination of amphoteric and anionic surfactants, and the VOC content of the composition which is less than 4% by weight, or 3%, or about 1% by weight or less. The Examiner asserts that it would be obvious to incorporate an amphoteric surfactant or combination of amphoteric and anionic surfactants to the glass cleaning composition because Cummings suggests their combination as suitable surfactants, and that the VOC content is obvious as mere optimization for best results through routine experimentation. Applicants respectfully submit that it would not have been obvious to one of ordinary skill in the art at the time of the invention to incorporate an

amphoteric surfactant or the combination of anionic and amphoteric surfactants to the composition of Cummings and to provide a composition with the VOC content as claimed in that Cummings does not teach or suggest a cleaning composition including an amphoteric surfactant in combination with the claimed VOC content and the claimed defined solvent, i.e., a low-volatile non-VOC evaporative organic solvent that has limited solubility in water of less than 20% and reduces surface tension of the composition to less than 40 dynes/cm.

Cummings also does not teach the inclusion of an alcohol or alkanolamine as a co-solvent in a combination as claimed. Further, Cummings does not recognize the problem being addressed by applicants of providing a cleaning composition with a low VOC content yet still providing acceptable cleaning ability. Thus, Cummings does not recognize any criticality in providing the limitations in combination as claimed, i.e., the particular surfactant (at least an amphoteric surfactant), defined VOC content and low volatile evaporative glycol ether solvent with defined properties, in particular the surface reduction capacity as claimed, and co-solvent including an alkanolamine and alcohol.

Accordingly, the primary reference Cummings fails to disclose -

- a composition including an amphoteric surfactant;
- a composition including both amphoteric and anionic surfactants;
- a composition having a VOC content of less than 4% by wt., or less than 3% by wt. or less than about 1% by wt.;
- a co-solvent including an alcohol and alkanolamine; and
- any recognition of criticality of a particular VOC content, in particular with a combination of components as claimed.

The claimed surfactants in combination with the defined low-volatile evaporative organic solvent with limited solubility in water of less than 20% and which reduces the surface tension of the composition to less than 40 dynes/cm would not be an obvious substitution in view of the absence of any teaching which would motivate or suggest such specific selection. Accordingly, in absence of applicants' disclosure there is no reason to provide a composition having at least an amphoteric surfactant, defined VOC content, low-volatile evaporative glycol ether solvent with defined properties as claimed, and co-solvent including an

alkanolamine and alcohol. Since these compounds are not obvious to provide in combination, it would not be obvious to further define particular compounds in the combination as claimed in the dependent claims, i.e., a disodium cocoamphodipropionate amphoteric surfactant, ethylene glycol n-hexyl ether as the organic solvent, a sulfate and/or sulfonate as the anionic surfactant, propylene glycol as the polyhydric alcohol, and monoethanolamine as the alkanolamine. Applicants are claiming a particular combination in order to obtain a zero to low volatile composition which provides acceptable cleaning of hard surfaces as described in the captioned application. Such is not taught or suggested by Cummings.

Accordingly, Cummings does not teach or suggest the claimed composition and does not render obvious the claimed compositions within the meaning of 35 U.S.C. § 103(a).

4. Rejection Of Claims 2, 12, 16, 24, 26, 28, 36, 38, 48, 50, 56, 67 And 70 Under 35 U.S.C. §103(a) Over Michael

Claims 2, 12, 16, 24, 26, 28, 36, 38, 48, 50, 56, 67 and 70 are patentable over Michael since Michael does not render the claims obvious within the meaning of 35 U.S.C. §103(a) as set forth hereafter.

Michael does not teach or suggest each and every claimed element. In particular, Michael does not teach a hard surface cleaning composition having the combination as claimed including the defined glycol ether low volatile non-VOC evaporative organic solvent having a limited solubility in water of less than 20% and ability to reduce surface tension of the composition to less than 40 dynes/cm, an amphoteric surfactant and a co-solvent different from the glycol ether solvent and including at least an alcohol and an alkanolamine. Michael does not provide any recognition of criticality as to VOC content or provide any teaching or suggestion which would motivate one skilled in the art to pick select claimed compounds and provide such in the claimed amount to be within the claimed VOC content.

The Examiner acknowledges that Michael fails to disclose a composition including ethylene glycol n-hexyl ether, and propylene glycol, and a VOC content of the composition which is about 1% by weight or less. Further, Michael fails to disclose a hard surface cleaning composition containing a combination of -

- the defined glycol ether low-volatile solvent with limited solubility in water of less than 20% and ability to reduce surface tension of the composition to less than 40 dynes/cm,

- an amphoteric surfactant, and
- a co-solvent different from the defined glycol ether and including an alcohol and alkanolamine.

Michael provides no recognition of criticality of VOC content, in particular as to being less than 4% by wt., or more particularly less than 3% by wt., and most particularly as less than about 1% by wt., each of which are separately claimed. Thus, no suggestion is provided by Michael which would lead to the selection of the specific compounds as claimed to provide a combination as claimed by applicants, in particular in amounts as claimed by applicants to provide a composition with the claimed zero to low VOC content and yet providing cleaning as desired of hard surfaces.

Accordingly, Michael does not teach or suggest the claimed composition and does not render obvious the claimed compositions within the meaning of 35 U.S.C. §103(a).

5. Rejection Of Claims 10, 14, 20, 22, 36, 46 And 58 Under 35 U.S.C. §103(a) Over Michael And Further In View Of Neumiller '921

Dependent claims 10, 14, 20, 22, 36, 46 and 58 are patentable over Michael in view of Neumiller '921 since Michael in combination with Neumiller '921 does not render the claims obvious within the meaning of 35 U.S.C. §103(a) as set forth hereafter.

Michael discloses an aqueous, liquid hard surface detergent composition and has various shortcomings with respect to the claimed compositions as set forth above. Neumiller '921 discloses an aqueous glass cleaning composition and also has various shortcomings with respect to the claimed compositions as set forth above. Michael and Neumiller '921 each have deficiencies as to the claimed subject matter as described above and such combination does not make up for these shortcomings. Applicants resubmit and rely on here the statements set forth above as to Michael and Neumiller '921.

Accordingly, Michael in combination with Neumiller '921 does not teach or suggest the claimed composition and does not render obvious the claimed compositions within the meaning of 35 U.S.C. §103(a).

6. Rejection Of Claims 9-10, 13-14, 19-22, 35-36, 45-46 And 57-58 Under 35 U.S.C. §103(a) Over Cummings And Further In View Of Neumiller '921

Dependent claims 9-10, 13-14, 19-22, 35-36, 45-46 and 57-58 are patentable over Cummings in view of Neumiller '921 since Cummings in combination with Neumiller '921 does not render the claims obvious within the meaning of 35 U.S.C. §103(a) as set forth hereafter.

Cummings discloses a glass cleaning composition and has various shortcomings with respect to the claimed

subject matter as set forth above. Neumiller '921 discloses an aqueous glass cleaning composition and also has various shortcomings with respect to the claimed subject matter as set forth above. Cummings and Neumiller '921 each have deficiencies as to the claimed subject matter that are not made up for upon combination together. Applicants resubmit and rely on here the distinctions of Cummings and Neumiller '921 as set forth above.

Accordingly, Cummings in combination with Neumiller '921 does not teach or suggest the claimed composition and does not render obvious the claimed compositions within the meaning of 35 U.S.C. §103(a).

7. Rejection Of Claims 2, 11-12, 15-16, 23-28, 37-38, 47-50, 55-56, 62-65, 67-68 And 70-71 Under 35 U.S.C. §103(a) Over Conway

Claims 2, 11-12, 15-16, 23-28, 37-38, 47-50, 55-56, 62-65, 67-68 and 70-71 are patentable over Conway since Conway does not render the claims obvious within the meaning of 35 U.S.C. §103(a) as set forth hereafter.

The Examiner acknowledges that Conway fails to specifically disclose an aqueous cleaning composition which comprises ethylene glycol n-hexyl ether, amphoteric and anionic surfactants, isopropanol, propylene glycol or monoethanolamine in the amounts as claimed and wherein the composition has a VOC content which is 4% by weight or less

as claimed. However, the Examiner asserts that such components would be obvious to provide in optimum amounts and that the VOC content would be an obvious selection based on optimization for a best result.

Applicants submit that it would not have been obvious to one of ordinary skill in the art at the time of the invention to prepare an aqueous cleaning composition comprising ethylene glycol n-hexyl ether, amphoteric and anionic surfactants, isopropanol, propylene glycol or an alkanolamine, in particular monoethanolamine, in the amounts as claimed and wherein the composition has a VOC content which is 4% by weight or less as claimed based on mere optimization since Conway does not provide any recognition of the problem being addressed by applicants or provide any recognition as to criticality as to VOC content, water solubility of the solvent or surface tension reduction capacity of the solvent, in particular wherein the solvent is a low volatile evaporative solvent. Thus, no guidance or suggestion is provided as to picking and choosing select components, in select amounts to achieve a defined VOC content in order to achieve the particular combination claimed by applicants. Conway teaches ranges considered optimum. Such ranges include up to 10% aliphatic alcohol and up to 5% of secondary alcohols. Thus, Conway provides a

composition useful as a hard surface cleaner which can have a VOC content of as much as 15% based on these components alone. In the absence of other teaching, no suggestion is provided to obtain a VOC content as claimed with a combination of components as claimed. To the extent Conway provides examples of a composition with a VOC content of a lesser amount, such compositions do not include the claimed amphoteric surfactant. The assertion of the Examiner is based on a selection of isolated components set forth in Conway and further modifying these components in order to achieve applicants' composition as claimed. No teaching or suggestion is present as to how to "optimize" the components set forth in Conway to obtain the particular combination as claimed.

Accordingly, Conway fails to disclose -

- a cleaning composition including ethylene glycol n-hexyl ether, amphoteric and anionic surfactants, isopropanol, propylene glycol or monoethanolamine,
- in amounts as claimed, and
- which upon combination have a VOC content of less than 4% by wt.

Selection of such a combination is not a mere optimization in the absence of suggestion to provide a particular selection as to compounds and amounts, in particular to

obtain a cleaning composition with the defined VOC content. No recognition of importance is provided as to VOC content, or water solubility of a solvent, or surface tension reduction capacity of the solvent, or that the solvent is a low-volatile evaporative organic solvent, is provided. In view of the lack of teaching relevant to applicants' invention and the inclusion of teachings in Conway which teach away from applicants' invention (e.g., teaching optimum ranges for components which clearly results in a VOC content greatly in excess of that claimed), mere substitution or optimization is not presented by Conway. In fact, if the optimum teachings of Conway were followed to provide substitution or optimization, such would lead to compositions opposite to that claimed by applicants.

Accordingly, Conway does not teach or suggest the claimed composition and does not render obvious the claimed compositions within the meaning of 35 U.S.C. §103(a).

8. Rejection Of Claims 9-10, 13-14, 19-22, 35-36, 45-46 And 57-58 Under 35 U.S.C. §103(a) Over Conway And Further In View Of Neumiller '921

Dependent claims 9-10, 13-14, 19-22, 35-36, 45-46 and 57-58 are patentable over Conway in view of Neumiller '921 since Conway in combination with Neumiller '921 does not render the claims obvious within the meaning of 35 U.S.C. §103(a) as set forth hereafter.

Conway discloses an aqueous cleaning composition and has various shortcomings with respect to the claimed subject matter as set forth above. Neumiller '921 discloses an aqueous glass cleaning composition and also has various shortcomings with respect to the claimed subject matter as set forth above. Conway and Neumiller '921 each have deficiencies as to the claimed subject matter that are not made up for upon combination together. Applicants resubmit and rely on here the distinctions of Conway and Neumiller '921 as set forth above.

Accordingly, Conway in combination with Neumiller '921 does not teach or suggest the claimed composition and does not render obvious the claimed compositions within the meaning of 35 U.S.C. §103(a).

9. Rejection Of Claims 11, 15, 23, 25, 27, 37, 49, 55, 62-65, 68 And 71 Under 35 U.S.C. §103(a) Over Michael And Further In View Of Conway

Claims 11, 15, 23, 25, 27, 37, 49, 55, 62-65, 68 and 71 are patentable over Michael in view of Conway since Michael in combination with Conway does not render the claims obvious within the meaning of 35 U.S.C. § 103(a) as set forth hereafter.

Michael discloses an aqueous, liquid hard surface detergent composition and has various shortcomings with respect to the claimed subject matter as set forth above.

Conway discloses an aqueous cleaning composition and also has various shortcomings with respect to the claimed subject matter as set forth above. The combination of Michael and Conway does not make up for the shortcomings of each of these references on the same basis as set forth above and resubmitted and relied on here.

Accordingly, Michael in combination with Conway does not teach or suggest the claimed composition and does not render obvious the claimed compositions within the meaning of 35 U.S.C. §103(a).

10. Rejection Of Claims 11, 15, 23, 25, 27, 37, 47, 49, 55 And 62-65 Under 35 U.S.C. §103(a) Over Neumiller '681 And Further In View Of Conway

Claims 11, 15, 23, 25, 27, 37, 47, 49, 55 and 62-65 are patentable over Neumiller '681 in view of Conway since Neumiller '681 in combination with Conway does not render the claims obvious within the meaning of 35 U.S.C. §103(a) as set forth hereafter.

Neumiller '681 discloses an aqueous cleaning composition and has various shortcomings with respect to the claimed subject matter as set forth above. Conway discloses an aqueous cleaning composition and also has shortcomings with respect to the claimed subject matter as set forth above. The combination of Neumiller '681 and Conway does not make up for the shortcomings of each of these references

on the same basis as set forth above and resubmitted and relied on here.

Accordingly, Neumiller '681 in view of Conway does not teach or suggest the claimed composition and does not render obvious the claimed compositions within the meaning of 35 U.S.C. §103(a).

11. Rejection Of Claim 64 Under 35 U.S.C. §103(a) Over Cummings And Further In View Of Conway

Dependent claim 64 is patentable over Cummings in view of Conway since Cummings in combination with Conway does not render the claims obvious within the meaning of 35 U.S.C. §103(a) as set forth hereafter.

Cummings discloses a glass cleaning composition and has various shortcomings with respect to the claimed subject matter as set forth above. Conway discloses an aqueous cleaning composition and also has shortcomings with respect to the claimed subject matter as set forth above. The combination of Cummings and Conway does not make up for the shortcomings of each of these references on the same basis as set forth above and resubmitted and relied on here.

Accordingly, Cummings in combination with Conway does not teach or suggest the claimed composition and does not render obvious the claimed compositions within the meaning of 35 U.S.C. §103(a).

12. Rejection Of Claims 2, 9, 11-13, 15-16, 19, 21, 23-28, 35-38, 45, 47-50, 55-57, 62-65, 67-68 And 70-71 Under 35 U.S.C. §103(a) Over Masters

Claims 2, 9, 11-13, 15-16, 19, 21, 23-28, 35-38, 45, 47-50, 55-57, 62-65, 67-68 and 70-71 are patentable over Masters since Masters does not render the claims obvious within the meaning of 35 U.S.C. §103(a) as set forth hereafter.

Masters teaches glass cleaning compositions which are described as typically containing detergent surfactants, solvents, builders, etc. It is further described that such prior art is often insufficient as to cleaning without leaving objectionable levels of spots and/or other films. The detergent composition disclosed to overcome this deficiency is stated to include (a) a detergent surfactant selected from anionic, amphoteric (including zwitterionic) and mixtures thereof as well as a nonionic co-surfactant; (b) hydrophobic volatile solvent; (c) alkaline material; (d) substantive polymer and (e) an aqueous solvent system including water and optionally a non-aqueous polar solvent. The hydrophobic volatile solvent is described at column 6, lines 63 to column 7, line 2 as being a degreasing solvent such as commonly used in the dry cleaning industry, hard surface cleaner industry, or metalworking industry.

No teaching or recognition of criticality is provided as to the VOC content of the composition. Rather, based on the teaching set forth above, e.g., the examples of the dry cleaning industry and metal working are known for using highly volatile solvents, and that the hydrophobic volatile solvents are taught for use in an amount of from 0.5-30%, preferably 2-8%, and more preferably from 3-8% the VOC content would not be understood as being significant. Thus, due to the high end range limits described, Masters clearly does not recognize any criticality in providing an aqueous cleaning composition with a VOC content which must be less than 4%.

Further, Masters does not teach or provide any recognition of criticality as to including a solvent which is a low volatile non-VOC evaporative glycol ether solvent of the defined formula which has a limited solubility in water of less than 20% and which reduces surface tension of the composition to less than 40 dynes/cm. Additionally, Masters teaches the ability to include an aqueous polar solvent in an amount of 0.5 to 40%. Again, there is no criticality recognized as to limiting volatility. Further, the Examiner acknowledges that Masters fails to specifically disclose a composition including ethylene glycol n-hexyl ether, an amphoteric surfactant, isopropanol,

monoethenolamine and propylene glycol or acrylic polymer or copolymer, and a composition having a VOC content as recited.

Thus, Masters does not provide any teaching or suggestion which would result in picking and choosing select components and providing such in a particular combination as claimed by applicants as to amounts, components, volatility, water solubility and surface tension reduction capacity. In fact, Masters recognizes the desirability of inclusion of hydrophobic volatile solvents in improving the cleaning ability of the composition (column 6, line 63 to column 7, line 2).

Accordingly, Masters fails in its disclosure to teach or suggest applicants' claimed compositions. Masters specifically teaches away from the claimed composition which has a VOC content of less than 4% by wt., and in particular can have the claimed lesser amounts of less than 3% by wt. and less than about 1% by wt. The ranges for the amount of hydrophobic solvent suitable for use disclosed in Masters includes amounts which are in clear excess of the claimed VOC content and, thus, Masters does not recognize any criticality as to the zero to low VOC content and thus provides no suggestion for selecting compounds which would

provide a composition which has such property. Masters further does not teach the claimed

- combination of compounds,
- claimed amounts of compounds,
- claimed volatility,
- claimed water solubility of organic evaporative solvent, and
- claimed surface reduction capacity of an evaporative organic solvent.

Accordingly, Masters does not teach or suggest the claimed composition and does not render obvious the claimed compositions within the meaning of 35 U.S.C. §103(a).

13. Rejection Of Claims 10, 14, 20, 22, 46, And 58 Under 35 U.S.C. §103(a) Over Masters And Further In View Of Neumiller '921

Dependent claims 10, 14, 20, 22, 46 and 58 are patentable over Masters in view of Neumiller '921 since Masters in combination with Neumiller '921 does not render the claims obvious within the meaning of 35 U.S.C. §103(a) as set forth hereafter.

Masters discloses a detergent composition and has various shortcomings with respect to the claimed subject matter as set forth above. Neumiller '921 discloses a glass cleaning composition and also has shortcomings as to the

claimed subject matter as set forth above. The combination of Masters and Neumiller '921 does not make up for the shortcomings of each reference on the same basis as set forth above and resubmitted and relied on here.

Accordingly, Masters in combination with Neumiller '921 does not teach or suggest the claimed composition and does not render obvious the claimed compositions within the meaning of 35 U.S.C. §103(a).

Conclusion

In summary, the claimed hard surface cleaning compositions include specified combinations of components which in turn have specified features and are present in a defined amount. The compositions of claim 2 include (1) at least one glycol ether solvent of a specified formula which is a low volatile non-VOC evaporative organic solvent with a limited water solubility of less than 20% and reduces surface tension of the composition to less than 40 dynes/cm, (2) at least one amphoteric surfactant, (3) at least one co-solvent which is different than (1), including as to solubility in water and surface tension reduction capacity, and includes an aliphatic alcohol, an alkanolamine and a polyhydric alcohol, and (4) an aqueous carrier, wherein the composition has a VOC content of less than about 4% by weight. Claim 62, the only other independent claim includes

(1) a least one glycol ether solvent of a specified formula which is a low volatile non-VOC evaporative organic solvent with a limited water solubility of less than 20% and reduces surface tension of the composition to less than 40 dynes/cm, (2) at least one amphoteric surfactant, (3) at least one co-solvent which is different than (1), including as to solubility in water and surface tension reduction capacity, and includes an aliphatic alcohol and an alkanolamine, (4) a polymer or copolymer, and (5) an aqueous carrier, wherein the composition has a VOC content of less than about 4% by weight.

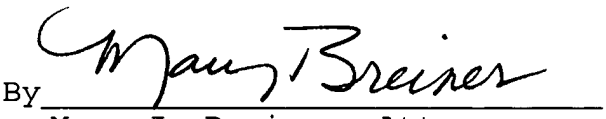
Based on the many compounds and possible combinations thereof disclosed in the applied art and lack of suggestion for selecting and combining the variously disclosed compounds as claimed, in particular in view of the lack of recognition as to the problems addressed by applicants and the specific defining properties claimed as to the respective components to achieve a composition with a VOC content of less than 4% by weight while still providing acceptable cleaning properties, applicants respectfully submit that the applied art provides no teaching or suggestion for selectively choosing isolated elements and combining in such a manner as to achieve applicants' claimed compositions. None of the applied art teaches each and

every element of the claims. Further, some reasonable basis needs to be provided in the applied art to suggest modification to achieve the claimed composition so as to render the claims obvious within the meaning of §103. No such reason is present. A mere assertion of optimization without more, in view of the differences described above, is respectfully submitted to be not sufficient under 35 U.S.C. §103.

It is respectfully submitted that the appealed claims are patentable within the meaning of 35 U.S.C. §103. Reversal of the Examiner's rejections is, therefore, respectfully requested.

Respectfully submitted,

JAMES J. LESKOWICZ ET AL

By 

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Attachments - Claims Appendix
- Evidence Appendix
- Related Proceedings Appendix

The Appealed Claims:

2. A hard surface cleaning composition comprising

(a) greater than 0 to about 4% by wt. of at least one low-volatile evaporative organic solvent that has limited solubility in water of less than 20% and reduces surface tension of the composition to less than 40 dynes/cm, wherein said at least one low-volatile evaporative organic solvent includes a non-volatile organic compound (non-VOC) which is a glycol ether having a formula –

R_1-O-R_2

wherein R_1 is a C_1-C_8 linear, branched or cyclic alkyl or alkenyl optionally substituted with -OH, $-OCH_3$, or $-OCH_2CH_3$ and R_2 is a C_1-C_6 linear, branched or cyclic alkyl or alkenyl substituted with -OH;

(b) greater than 0 to about 5% by wt. of at least one amphoteric surfactant and, optionally, at least one additional surfactant which is anionic, nonionic, cationic or a mixture thereof;

(c) from greater than 0 to about 30% by wt. of at least one co-solvent which is different from (a) and when said co-solvent is a low volatile non-VOC solvent, said co-solvent has at least a different water-solubility or different surface tension reduction capacity from said solvent of (a),

and includes at least one aliphatic alcohol, at least one polyhydric alcohol, and at least one alkanolamine; and

(d) a balance of an aqueous carrier;

wherein said composition has less than about 4% by wt. volatile organic compound (VOC) content.

9. The hard surface cleaning composition of claim 62 wherein said at least one amphoteric surfactant is disodium cocoamphodipropionate.

10. The hard surface cleaning composition of claim 2 wherein said at least one amphoteric surfactant is disodium cocoamphodipropionate.

11. The hard surface cleaning composition of claim 62 wherein said at least one low-volatile evaporative organic solvent is ethylene glycol n-hexyl ether.

12. The hard surface cleaning composition of claim 2 wherein said at least one low-volatile evaporative organic solvent is ethylene glycol n-hexyl ether.

13. The hard surface cleaning composition according to claim 9 wherein said at least one low-volatile evaporative organic solvent is ethylene glycol n-hexyl ether.

14. The hard surface cleaning composition according to claim 10 wherein said at least one low-volatile evaporative organic solvent is ethylene glycol n-hexyl ether.

15. The hard surface cleaning composition according to claim 62 wherein said at least one additional surfactant of (b) comprises an anionic surfactant.

16. The hard surface cleaning composition according to claim 2 wherein said at least one additional surfactant of (b) comprises an anionic surfactant.

19. The hard surface cleaning composition according to claim 15 wherein said at least one amphoteric surfactant is disodium cocoamphodipropionate and said anionic surfactant is a sulfate and/or sulfonate compound.

20. The hard surface cleaning composition according to claim 16 wherein said at least one amphoteric surfactant is disodium cocoamphodipropionate and said anionic surfactant is a sulfate and/or sulfonate compound.

21. The hard surface composition according to claim 19 wherein said at least one low-volatile evaporative organic solvent is ethylene glycol n-hexyl ether.

22. The hard surface composition according to claim 20 wherein said at least one low-volatile evaporative organic solvent is ethylene glycol n-hexyl ether.

23. The hard surface cleaning composition according to claim 62 wherein said composition has a pH of 2 or above.

24. The hard surface cleaning composition according to claim 2 wherein said composition has a pH of 2 or above.

25. The hard surface cleaning composition according to claim 62 wherein said composition has a pH of 2 to 13.

26. The hard surface cleaning composition according to claim 2 wherein said composition has a pH of 2 to 13.

27. The hard surface cleaning composition according to claim 62 further comprising at least one polyhydric alcohol which includes propylene glycol.

28. The hard surface cleaning composition according to claim 2 wherein said at least one polyhydric alcohol includes propylene glycol.

35. The hard surface cleaning composition according to claim 9 further comprising at least one polyhydric alcohol which includes propylene glycol.

36. The hard surface cleaning composition according to claim 10 wherein said at least one polyhydric alcohol includes propylene glycol.

37. The hard surface cleaning composition according to claim 62 wherein said at least one alkanolamine includes monoethanolamine.

38. The hard surface cleaning composition according to claim 2 wherein said at least one alkanolamine includes

monoethanolamine.

45. The hard surface cleaning composition according to claim 9 wherein said at least one alkanolamine includes monoethanolamine.

46. The hard surface cleaning composition according to claim 10 wherein said at least one alkanolamine includes monoethanolamine.

47. The hard surface cleaning composition according to claim 25 wherein said at least one alkanolamine includes monoethanolamine.

48. The hard surface cleaning composition according to claim 26 wherein said at least one alkanolamine includes monoethanolamine.

49. The hard surface cleaning composition according to claim 62 wherein said at least one aliphatic alcohol is isopropanol.

50. The hard surface cleaning composition according to claim 2 wherein said at least one aliphatic alcohol is isopropanol.

55. The hard surface cleaning composition according to claim 15 wherein said at least one aliphatic alcohol is isopropanol.

56. The hard surface cleaning composition according to claim 16 wherein said at least one aliphatic alcohol is isopropanol.

57. The hard surface cleaning composition according to claim 19 wherein said at least one aliphatic alcohol is isopropanol.

58. The hard surface cleaning composition according to claim 20 wherein said at least one aliphatic alcohol is isopropanol.

62. A hard surface cleaning composition comprising

(a) greater than 0 to about 4% by wt. of at least one low-volatile evaporative organic solvent that has limited solubility in water of less than 20% and reduces surface tension of the composition to less than 40 dynes/cm, wherein said at least one low-volatile evaporative organic solvent includes a non-volatile organic compound (non-VOC) which is a glycol ether having a formula –

R_1-O-R_2

wherein R_1 is a C_1-C_8 linear, branched or cyclic alkyl or alkenyl optionally substituted with -OH, $-OCH_3$, or $-OCH_2CH_3$ and R_2 is a C_1-C_6 linear, branched or cyclic alkyl or alkenyl substituted with -OH;

(b) greater than 0 to about 5% by wt. of at least one

amphoteric surfactant and, optionally, at least one surfactant which is anionic, nonionic, cationic or a mixture thereof;

(c) from greater than 0 to about 30% by wt. of at least one co-solvent which is different from (a) and when said co-solvent is a low volatile non-VOC solvent, said co-solvent has at least a different water-solubility or different surface tension reduction capacity from said solvent of (a), and includes at least one aliphatic alcohol, and an alkanolamine;

(d) a polymer or a copolymer; and

(e) a balance of an aqueous carrier;

wherein said composition has less than about 4% by wt. volatile organic compound (VOC) content.

63. A hard surface cleaning composition according to claim 62 wherein said polymer is an acrylic polymer.

64. A hard surface cleaning composition according to claim 62 wherein said copolymer is an acrylic copolymer.

65. A hard surface cleaning composition according to claim 62 wherein said at least one additional surfactant of (b) is present and includes an anionic surfactant, said at least one co-solvent of (c) includes a glycol.

67. A hard surface cleaning composition according to claim 2, wherein said VOC content is 3% by wt. or less.

68. A hard surface cleaning composition according to claim 62, wherein said VOC content is 3% by wt. or less.

70. A hard surface cleaning composition according to claim 2, wherein said VOC content is about 1% by wt. or less.

71. A hard surface cleaning composition according to claim 62, wherein said VOC content is about 1% by wt. or less.

* * * * *

E V I D E N C E
A P P E N D I X

- NONE -

* * * * *

R E L A T E D
P R O C E E D I N G S
A P P E N D I X

- NONE -

* * * * *